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         MAY 10
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                 KOREAPAT updates resume
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         MAY 19
                 Derwent World Patents Index to be reloaded and enhanced
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                 IPC 8 Rolled-up Core codes added to CA/CAplus and
                 USPATFULL/USPAT2
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NEWS
                 The F-Term thesaurus is now available in CA/CAplus
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         JUN 02
                 The first reclassification of IPC codes now complete in
                 INPADOC
                 TULSA/TULSA2 reloaded and enhanced with new search and
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         JUN 26
                 and display fields
         JUN 28
                 Price changes in full-text patent databases EPFULL and PCTFULL
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         JUl 11
                 CHEMSAFE reloaded and enhanced
NEWS 13
         JU1 14
                 FSTA enhanced with Japanese patents
NEWS 14
         JUl 19
                 Coverage of Research Disclosure reinstated in DWPI
NEWS 15
        AUG 09
                 INSPEC enhanced with 1898-1968 archive
        AUG 28
                 ADISCTI Reloaded and Enhanced
NEWS 16
         AUG 30
                 CA(SM)/CAplus(SM) Austrian patent law changes
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NEWS 18
         SEP 11
                 CA/CAplus enhanced with more pre-1907 records
NEWS 19
         SEP 21
                 CA/CAplus fields enhanced with simultaneous left and right
                 truncation
NEWS 20
         SEP 25
                 CA(SM)/CAplus(SM) display of CA Lexicon enhanced
NEWS 21
         SEP 25
                 CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS 22
         SEP 25
                 CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS 23
         SEP 28
                 CEABA-VTB classification code fields reloaded with new
                 classification scheme
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NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

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NEWS X25 X.25 communication option no longer available
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FILE COVERS 1907 - 28 Sep 2006 VOL 145 ISS 14 FILE LAST UPDATED: 27 Sep 2006 (20060927/ED)

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=> file reg COST IN U.S. DOLLARS

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SINCE FILE TOTAL ENTRY SESSION 2.49 2.70

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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

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                  (3523-95-3/RN)
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Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at: http://www.cas.org/infopolicy.html => s 1222388 L2 L3 => s 12/thu22388 L2 816051 THU/RL L41169 L2/THU (L2 (L) THU/RL) => s cancer? or tumor? or neoplas? 307106 CANCER? 442741 TUMOR? 464671 NEOPLAS? 733490 CANCER? OR TUMOR? OR NEOPLAS? L5 => s 14 (1) 1567 L4 (L) L5 => s 16 not py>2002 4389687 PY>2002 18 L6 NOT PY>2002 L7 => d ibib 1-18 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN 2003:153905 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 138:265037 TITLE: Indisulam Eisai AUTHOR(S): Supuran, Claudiu T. Universita degli Studi di Firenze, Dipartimento di CORPORATE SOURCE: Chimica, Sesto Fiorentino, I-50019, Italy SOURCE: IDrugs (2002), 5(11), 1075-1079 CODEN: IDRUFN; ISSN: 1369-7056 PUBLISHER: PharmaPress Ltd. DOCUMENT TYPE: Journal; General Review LANGUAGE: English THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 33 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT L7 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN 2002:875612 CAPLUS ACCESSION NUMBER: DOCUMENT NUMBER: 138:395176 E7070: a novel synthetic sulfonamide targeting the TITLE: cell cycle progression for the treatment of cancer AUTHOR(S): van Kesteren, Charlotte; Beijnen, Jos H.; Schellens, Jan H. M. Department of Pharmacy and Pharmacology, The CORPORATE SOURCE: Netherlands Cancer Institute/Slotervaart Hospital, Amsterdam, 1066 EC, Neth.

Anti-Cancer Drugs (2002), 13(10), 989-997 SOURCE:

CODEN: ANTDEV; ISSN: 0959-4973 Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal; General Review

English LANGUAGE:

PUBLISHER:

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 3 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN L7 ACCESSION NUMBER: 2002:804494 CAPLUS

DOCUMENT NUMBER: 138:362245

TITLE: An excretion balance and pharmacokinetic study of the

novel anticancer agent E7070 in cancer patients

AUTHOR(S): van den Bongard, H. J. G. Desiree; Pluim, Dick;

Rosing, Hilde; Nan-Offeringa, Lianda; Schot, Margaret; Ravic, Miroslav; Schellens, Jan H. M.; Beijnen, Jos H.

CORPORATE SOURCE: Department of Pharmacy and Pharmacology, Slotervaart

Hospital/The Netherlands Cancer Institute, Amsterdam,

1066 EC, Neth.

SOURCE: Anti-Cancer Drugs (2002), 13(8), 807-814

CODEN: ANTDEV; ISSN: 0959-4973 Lippincott Williams & Wilkins

PUBLISHER: Lippinco
DOCUMENT TYPE: Journal
LANGUAGE: English

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:708041 CAPLUS

DOCUMENT NUMBER: 137:241842

TITLE: Phase I and pharmacokinetic study of E7070, a novel

chloroindolyl sulfonamide cell-cycle inhibitor,

administered as a one-hour infusion every three weeks

in patients with advanced cancer

AUTHOR(S): Raymond, E.; ten Bokkel Huinink, W. W.; Taieb, J.;

Beijnen, J. H.; Faivre, S.; Wanders, J.; Ravic, M.; Fumoleau, P.; Armand, J. P.; Schellens, J. H. M.

CORPORATE SOURCE: European Organization for the Research and Treatment

of Cancer Early Clinical Study Group, Institut

Gustave-Roussy, Villejuif, 94805, Fr.

SOURCE: Journal of Clinical Oncology (2002), 20(16), 3508-3521

CODEN: JCONDN; ISSN: 0732-183X Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal LANGUAGE: English

PUBLISHER:

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:603243 CAPLUS

DOCUMENT NUMBER: 138:163096

TITLE: Acetazolamide suppresses tumor metastasis and related

protein expression in mice bearing Lewis lung

carcinoma

AUTHOR(S): Xiang, Yang; Ma, Bing; Li, Tao; Yu, He-Ming; Li,

Xue-Jun

CORPORATE SOURCE: Department of Pharmacology, School of Basic Medical

Sciences, Peking University, Beijing, 100083, Peop.

Rep. China

SOURCE: Acta Pharmacologica Sinica (2002), 23(8), 745-751

CODEN: APSCG5; ISSN: 1671-4083

PUBLISHER: Science Press

DOCUMENT TYPE: Journal LANGUAGE: English,

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:346758 CAPLUS

DOCUMENT NUMBER: 138:61168

TITLE: Transmasal chemotherapy of the brain tumor utilizing

the direct transport pathway between the nose and the

cerebrospinal fluid

AUTHOR(S): Sakane, T.; Yamashita, S.; Yata, N.; Sezaki, H.;

Tokunaga, Y.; Shibata, S.

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Setsunan

University, Osaka, 573-0101, Japan Proceedings - 28th International Symposium on SOURCE:

Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 1, 225-226. Controlled Release Society: Minneapolis,

Minn.

CODEN: 69CNY8

DOCUMENT TYPE:

Conference

LANGUAGE:

English

REFERENCE COUNT:

THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 7 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN L7

ACCESSION NUMBER:

2001:724918 CAPLUS

DOCUMENT NUMBER:

136:395443

TITLE:

Mechanisms of action of the novel sulfonamide

anticancer agent E7070 on cell cycle progression in

human non-small cell lung cancer cells

Fukuoka, Kazuya; Usuda, Jitsuo; Iwamoto, Yasuo; AUTHOR(S):

Fukumoto, Hisao; Nakamura, Takashi; Yoneda, Takahiro;

Narita, Nobuhiro; Saijo, Nagahiro; Nishio, Kazuto

Pharmacology Division, National Cancer Center Research CORPORATE SOURCE:

Institute, Tokyo, Japan

Investigational New Drugs (2001), 19(3), 219-227 SOURCE:

CODEN: INNDDK; ISSN: 0167-6997

PUBLISHER:

Kluwer Academic Publishers

DOCUMENT TYPE:

Journal English

LANGUAGE: REFERENCE COUNT:

THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS 36 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN L7

ACCESSION NUMBER:

2000:455364 CAPLUS

DOCUMENT NUMBER:

133:38216

TITLE:

Preparation of sulfanilamide derivative for diagnosis ·

and treatment of tumor

INVENTOR(S):

Tan, Lisong; Li, Libin; Su, Bo

PATENT ASSIGNEE(S):

Shanghai No.1 Pulmonary Department Hospital, Peop.

Rep. China

SOURCE:

Faming Zhuanli Shenqing Gongkai Shuomingshu, 24 pp.

CODEN: CNXXEV

DOCUMENT TYPE:

Patent

LANGUAGE:

Chinese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1214264	Α	19990421	CN 1997-106657	19971015
PRIORITY APPLN. INFO.:			CN 1997-106657	19971015

ANSWER 9 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN 1.7

ACCESSION NUMBER:

2000:176258 CAPLUS .

DOCUMENT NUMBER:

132:303120

TITLE:

Carbonic anhydrase inhibitor suppresses invasion of

renal cancer cells in vitro

AUTHOR(S):

Parkkila, Seppo; Rajaniemi, Hannu; Parkkila,

Anna-Kaisa; Kivela, Jyrki; Waheed, Abdul; Pastorekova,

Silvia; Pastorek, Jaromir; Sly, William S.

CORPORATE SOURCE:

Departments of Anatomy and Cell Biology, Clinical

SOURCE:

Chemistry, 90014 University of Oulu, Finland Proceedings of the National Academy of Sciences of the

United States of America (2000), 97(5), 2220-2224

CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences Journal DOCUMENT TYPE:

English LANGUAGE:

26 REFERENCE COUNT: THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 10 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN L7

1999:712802 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 132:227295

AUTHOR(S):

TITLE: Transnasal delivery of anticancer drugs to the brain

> tumor: a new strategy for brain tumor chemotherapy Shingaki, Tomotaka; Sakane, Toshiyasu; Yamashita,

Shinji; Sezaki, Hitoshi; Tokunaga, Yoshiharu; Shibata,

Shobu

CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Setsunan

University, Setsunan, Japan

SOURCE: Drug Delivery System (1999), 14(5), 365-371

> CODEN: DDSYEI; ISSN: 0913-5006 Nippon DDS Gakkai Jimukyoku

PUBLISHER: DOCUMENT TYPE: Journal

Japanese LANGUAGE:

L7 ANSWER 11 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:773985 CAPLUS

DOCUMENT NUMBER: 130:248135

Chinese herbs nephropathy-associated slimming regimen TITLE:

induces tumors in the forestomach but no interstitial

nephropathy in rats

AUTHOR(S): Cosyns, Jean-Pierre; Goebbels, Rose-Marie; Liberton,

Vinciane; Schmeiser, Heinz H.; Bieler, Christian A.;

Bernard, Alfred M.

Cliniques Universitaires St. Luc, Department of CORPORATE SOURCE:

Pathology, ANPS 1712 Catholic University of Louvain

Medical School, Brussels, B-1200, Belg.

SOURCE: Archives of Toxicology (1998), 72(11), 738-743

CODEN: ARTODN; ISSN: 0340-5761

Springer-Verlag PUBLISHER: DOCUMENT TYPE: Journal

LANGUAGE: English

24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 12 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN L7

1998:750281 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 130:208022

Carbonic anhydrase II as a marker of malignant TITLE:

· features for colorectal cancer

AUTHOR(S): Bekku, Shinya; Yamamoto, Tetsuhisa; Mochizuki,

Hidetaka

Department of First Surgery, National Defence Medical CORPORATE SOURCE:

College, Japan

SOURCE: Igaku no Ayumi (1998), 186(12), 891-892

CODEN: IGAYAY; ISSN: 0039-2359

PUBLISHER:

Ishiyaku Shuppan Journal

DOCUMENT TYPE: LANGUAGE: Japanese

CAPLUS COPYRIGHT 2006 ACS on STN ANSWER 13 OF 18

ACCESSION NUMBER: 1998:640364 CAPLUS

DOCUMENT NUMBER: 129:242205

TITLE: Rapid method of cancer diagnosis by measuring

activation of carbonic anhydrase II by blood serum

tumor markers

INVENTOR(S): Puscas, Ioan; Puscas, Iuliana Carmen; Coltau, Marcela; Domuta, Gabriela; Baican, Michael

PATENT ASSIGNEE(S):

Rom.

SOURCE:

PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

	TENT						DATE				ICAT				D	ATE	
WO	9841 9841	649			A2										1	9980	313
	W:	AL,	ΑU,	BB,	BG,	BR,	CA,	CN,	CU,	CZ,	EE,	GE,	GW,	HU,	ID,	IL,	IS,
							LR,										
		SI,	SK,	SL,	TR,	TT,	UA,	US,	UZ,	VN,	YU,	ΑM,	ΑZ,	BY,	KG,	ΚZ,	MD,
		RU,															
	RW:						SD,										
							LU,			PT,	SE,	BF,	ВJ,	CF,	CG,	CI,	CM,
							SN,										
RO	1148	35			В3		1999	0730		RO 1	997-	502			1	9970	317
	2284															9980	313
AU	9867	298			A1		1998	1012		AU 1	998-	6729	8		1	9980	313
	7.388																
	9720									EP 1	998-	9124	75		1	9980	313
	9720																
	R:	ΑT,	BE,	CH,	DE,	ES,	FR,	GB,	GR,	ΙT,	LI,	LU,	NL,	SE,	PT,	SI,	LT,
		FI,															
	9808						2000	0523		BR 1	998-	8373			1	9980	313
NZ	3378	50			Α		2001	0727			998-						
JP	2001 2092	5248	15		Т2		2001				998-						
AΤ	2092	56			E		2001	1215		AT 1	998-	9124	75		1	9980	313
MX	9908	488			Α		2000	0531			999-						
PRIORITY	Y APP	LN.	INFO	. :							997-					9970	317
									1	WO 1	998-	EP14	65	I	W 1	9980	313

L7 ANSWER 14 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1998:465838 CAPLUS

DOCUMENT NUMBER:

129:228986

TITLE:

Immunohistochemical study of colorectal tumors for

expression of a novel transmembrane carbonic

anhydrase, MN/CA IX, with potential value as a marker

of cell proliferation

AUTHOR(S):

Saarnio, Juha; Parkkila, Seppo; Parkkila, Anna-Kaisa;

Haukipuro, Kari; Pastorekova, Silvia; Pastorek,

Jaromir; Kairaluoma, Matti I.; Karttunen, Tuomo J. Department of Surgery, University of Oulu, Oulu,

CORPORATE SOURCE: SF-90220, Finland

SOURCE:

American Journal of Pathology (1998), 153(1), 279-285

CODEN: AJPAA4; ISSN: 0002-9440

PUBLISHER:

American Society for Investigative Pathology

DOCUMENT TYPE: LANGUAGE:

REFERENCE COUNT:

Journal English

> THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 15 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

23

ACCESSION NUMBER:

1998:334002 CAPLUS

DOCUMENT NUMBER:

129:51697

TITLE:

The immunoassay of carbonic anhydrase for screening

colon cancer

INVENTOR(S):

PATENT ASSIGNEE(S):

Yokoyama, Yukio Yokoyama, Yukio, Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 2 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

DATE DATE PATENT NO. KIND APPLICATION NO. -------------------JP 1996-327494 JP 10132822 A2 19980522 19961101 PRIORITY APPLN. INFO.: JP 1996-327494 19961101

ANSWER 16 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN L7

ACCESSION NUMBER: 1997:537618 CAPLUS

DOCUMENT NUMBER: 127:130994

Use of carbonic anhydrase inhibitors to prepare a drug TITLE:

for cancer therapy

INVENTOR(S): Lang, Hans Jochen; Gericke, Dietmar

PATENT ASSIGNEE(S): Hoechst A.-G., Germany; Lang, Hans Jochen; Gericke,

Dietmar

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

KIND DATE APPLICATION NO. DATE PATENT NO. ----------_____ ----WO 9725039 19970717 WO 1996-EP5793 19961220 A1 W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG DE 19600721 DE 1996-19600721 A1 19970717 19960112 AU 1997-13046 AU 9713046 A1 19970801 19961220 PRIORITY APPLN. INFO.: DE 1996-19600721 A 19960112 WO 1996-EP5793 W 19961220

L7 ANSWER 17 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

1996:262841 CAPLUS

DOCUMENT NUMBER:

124:314359

TITLE:

A marker antigen for non-small cell lung cancer and a

cDNA encoding it and their uses

INVENTOR(S):

Torczynski, Richard M.; Bollon, Arthur P.

PATENT ASSIGNEE(S):

Cytoclonal Pharmaceutics, Inc., USA

SOURCE:

PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	K	IND DATE	APPLICATION NO.	DATE
WO 9602552		A1 19960201	WO 1995-US9145	19950719
W: AU,	BR, CA, CI	N, FI, JP, KE,	KR, LK, MN, MX, NO,	NZ, PL, RU, UA, US
RW: AT,	BE, CH, D	E, DK, ES, FR,	GB, GR, IE, IT, LU,	MC, NL, PT, SE
US 5589579		A 19961231	US 1994-276919	19940719
CA 2195403		AA 19960201	CA 1995-2195403	19950719
AU 9533592		A1 19960216	AU 1995-33592	19950719
AU 700915]	B2 19990114		
EP 804451		A1 19971105	EP 1995-930093	19950719
R: AT,	BE, CH, D	E, DK, ES, FR,	GB, GR, IT, LI, LU,	NL, SE, MC, PT, IE
BR 9508417	i	A 19971118	BR 1995-8417	19950719

JP 10503087 Т2 19980324 JP 1995-505257 19950719 US 5773579 Α 19980630 US 1997-776088 19970121 A 19940719 PRIORITY APPLN. INFO.: US 1994-276919 WO 1995-US9145 W 19950719

L7 ANSWER 18 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1970:475517 CAPLUS

DOCUMENT NUMBER: 73:75517

Oncostatic activities of some fluoro compounds against TITLE:

Ehrlich carcinoma in mice

Nakahara, Toru; Miyamoto, Fumiko; Kayama, Tokihiko AUTHOR(S):

CORPORATE SOURCE: Wakayama Univ., Wakayama, Japan

SOURCE: Wakayama Daigaku Gakugeigakubu Kiyo, Shizenkagaku

(1968), No. 18, 15-17

CODEN: WDGKAJ; ISSN: 0507-8318

DOCUMENT TYPE:

Journal LANGUAGE: Japanese

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(FILE 'HOME' ENTERED AT 12:44:18 ON 28 SEP 2006)

FILE 'CAPLUS' ENTERED AT 12:44:27 ON 28 SEP 2006

1 S US 20040146955/PN L1

SEL RN

FILE 'REGISTRY' ENTERED AT 12:44:43 ON 28 SEP 2006

L2 108 S E1-E108

FILE 'CAPLUS' ENTERED AT 12:44:58 ON 28 SEP 2006

22388 S L2 L3

L41169 S L2/THU

L5 733490 S CANCER? OR TUMOR? OR NEOPLAS?

L6 67 S L4 (L) L5

L7 18 S L6 NOT PY>2002

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T.8 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2003:153905 CAPLUS

DOCUMENT NUMBER:

138:265037 Indisulam Eisai

TITLE: AUTHOR(S):

Supuran, Claudiu T.

CORPORATE SOURCE:

Universita degli Studi di Firenze, Dipartimento di

Chimica, Sesto Fiorentino, I-50019, Italy

SOURCE:

IDrugs (2002), 5(11), 1075-1079 CODEN: IDRUFN; ISSN: 1369-7056

PUBLISHER:

PharmaPress Ltd.

DOCUMENT TYPE:

Journal: General Review

LANGUAGE:

English

REFERENCE COUNT:

33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER:

2002:875612 CAPLUS

DOCUMENT NUMBER:

138:395176

TITLE:

E7070: a novel synthetic sulfonamide

targeting the cell cycle progression for the treatment

of cancer

AUTHOR(S):

van Kesteren, Charlotte; Beijnen, Jos H.; Schellens,

Jan H. M.

CORPORATE SOURCE: Department of Pharmacy and Pharmacology, The

Netherlands Cancer Institute/Slotervaart Hospital,

Amsterdam, 1066 EC, Neth.

Anti-Cancer Drugs (2002), 13(10), 989-997 SOURCE:

CODEN: ANTDEV; ISSN: 0959-4973

PUBLISHER: Lippincott Williams & Wilkins Journal; General Review

DOCUMENT TYPE:

·English LANGUAGE:

33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

CAPLUS COPYRIGHT 2006 ACS on STN L8 ANSWER 3 OF 5

ACCESSION NUMBER: 2002:804494 CAPLUS

DOCUMENT NUMBER: 138:362245

TITLE: An excretion balance and pharmacokinetic study of the

novel anticancer agent E7070 in cancer patients van den Bongard, H. J. G. Desiree; Pluim, Dick;

AUTHOR(S):

Rosing, Hilde; Nan-Offeringa, Lianda; Schot, Margaret; Ravic, Miroslav; Schellens, Jan H. M.; Beijnen, Jos H. Department of Pharmacy and Pharmacology, Slotervaart

CORPORATE SOURCE:

Hospital/The Netherlands Cancer Institute, Amsterdam,

1066 EC, Neth.

Anti-Cancer Drugs (2002), 13(8), 807-814 SOURCE:

CODEN: ANTDEV; ISSN: 0959-4973 Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal

PUBLISHER:

LANGUAGE: English

THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS 12 REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN L8

ACCESSION NUMBER: 2002:708041 CAPLUS

137:241842 DOCUMENT NUMBER:

Phase I and pharmacokinetic study of E7070, a novel TITLE:

chloroindolyl sulfonamide cell-cycle

inhibitor, administered as a one-hour infusion every

three weeks in patients with advanced cancer

AUTHOR(S): Raymond, E.; ten Bokkel Huinink, W. W.; Taieb, J.;

Beijnen, J. H.; Faivre, S.; Wanders, J.; Ravic, M.; Fumoleau, P.; Armand, J. P.; Schellens, J. H. M. European Organization for the Research and Treatment

CORPORATE SOURCE:

of Cancer Early Clinical Study Group, Institut

Gustave-Roussy, Villejuif, 94805, Fr.

Journal of Clinical Oncology (2002), 20(16), 3508-3521 SOURCE:

CODEN: JCONDN; ISSN: 0732-183X Lippincott Williams & Wilkins

PUBLISHER: Journal DOCUMENT TYPE:

English LANGUAGE:

THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:724918 CAPLUS

DOCUMENT NUMBER: 136:395443

TITLE: Mechanisms of action of the novel sulfonamide

anticancer agent E7070 on cell cycle progression in

human non-small cell lung cancer cells

AUTHOR(S): Fukuoka, Kazuya; Usuda, Jitsuo; Iwamoto, Yasuo;

Fukumoto, Hisao; Nakamura, Takashi; Yoneda, Takahiro; Narita, Nobuhiro; Saijo, Nagahiro; Nishio, Kazuto

CORPORATE SOURCE: Pharmacology Division, National Cancer Center Research

Institute, Tokyo, Japan

SOURCE: Investigational New Drugs (2001), 19(3), 219-227

CODEN: INNDDK; ISSN: 0167-6997

PUBLISHER:

Kluwer Academic Publishers

DOCUMENT TYPE: LANGUAGE:

Journal English

REFERENCE COUNT:

36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 12:44:18 ON 28 SEP 2006)

FILE 'CAPLUS' ENTERED AT 12:44:27 ON 28 SEP 2006

1 S US 20040146955/PN L1

SEL RN

FILE 'REGISTRY' ENTERED AT 12:44:43 ON 28 SEP 2006

108 S E1-E108 L2

FILE 'CAPLUS' ENTERED AT 12:44:58 ON 28 SEP 2006

22388 S L2 L3

1169 S L2/THU L4

L5 733490 S CANCER? OR TUMOR? OR NEOPLAS?

67 S L4 (L) L5 L6

18 S L6 NOT PY>2002 L7 5 S L7 AND SULFONAM? rs

 \Rightarrow d 17 ibib abs kwic 8, 9, 16

ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN T.7

2000:455364 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 133:38216

TITLE: _ Preparation of sulfanilamide derivative for diagnosis

and treatment of tumor

Tan, Lisong; Li, Libin; Su, Bo INVENTOR(S):

PATENT ASSIGNEE(S): Shanghai No.1 Pulmonary Department Hospital, Peop.

Rep. China

Faming Zhuanli Shenqing Gongkai Shuomingshu, 24 pp. SOURCE:

CODEN: CNXXEV

DOCUMENT TYPE:

Patent Chinese LANGUAGE:

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATE	ENT NO.	KIND	DATE	APPLICATION NO.	DATE
PRIORITY	214264 APPLN. INFO.:	•		CN 1997-106657 CN 1997-106657	19971015
AB The or (poly acid 188F tumo isop solu epox N-ac buff 50° DCC meth acet iodd hexa	sulfanilamide of CH3CONH, etc.; Fyglycol, metylerd, etc.; and R3 Re, 186Re, 90Y, or. The sulfanioropanol-butaneoution, regulating etylsulfadiazing for 3 h, and sulfanionylenecarboxylhetic anhydride for acetic acid at anediamine in the chacetic acid at anediamine in the collistic control of the collistic acid at anediamine in the collistic collistic acid at anediamine in the collistic collistic acid at anediamine in the collistic col	A2 = pyrneformyl = anti- or 67Cu lamide diamine) ng pH to for 3-5 ne-PEG, H 9.0-10 nbstitut amide in examediamic sor 30 mine prese	imidinyl, py hexanediamin tumor drug, l, etc.) is u intermediate is prepared 0.0-11, prec d, terminat acetylating 0.0), allowin ing with but intermediate umine) is pre- n, dissolvin pH 10-11 for ence of DCCI	renylene-SO2-N(R2)-L-R3 razinyl, or other hete be, or methylenecarbony or complexant for 1111 seed for diagnosis and (I) (N-acetylsulfadial by dissolving sulfadial by dissolving sulfadial by dissolving sulfadial by dissolving with ethanol ing with methanol to of with acetic anhydride ag to react with chlorostanediamine in the presection (II) (N-acetylsulfadial epared by acetylating seed in NaOH solution, color 5 h, substituting with and in THF at 4° for 2	(R1 = NH2, CH3, rocycle; L = laminohexanoic n, 99mTc, treatment of zine-PEG-azine in NaOH, polymerizing with btain in NaHCO3 methyloxirane at ence of zine-ulfadiazine with ndensation with th , and
ext: dissolvir		anol.	The sulfanil	amide derivative is pr	epared by

in chloroform, condensation with cyclic DTPA for 24 h, precipitating with EtOAc,

and recrystg. with chloroform or EtOAc. The sulfanilamide derivative-drug composite is prepared by condensation of the sulfanilamide derivative with activated drug in NaHCO3 buffer solution (pH 9.0) for 30 min, and separating

with

Sephadex G10 or LH20 column chromatog. Sulfadiazine may be replaced by sulfapyrazine. The activated drug is selected from carboxy-activated methotrexate, pentanedioic acid-activated mitomycin C, and pentanedioic acid-activated adriamycin.

IT 63-74-1D, Sulfanilamide, antitumor derivs. 10098-91-6D, 90Y, sulfanilamide complex, biological studies 14133-76-7D, Technetium, isotope of mass 99, sulfanilamide complex, biological studies 14378-26-8D, 188Re, sulfanilamide complex, biological studies 14998-63-1D, 186Re, sulfanilamide complex, biological studies 15750-15-9D, 111In, sulfanilamide complex, biological studies 15757-86-5D, 67Cu, sulfanilamide complex, biological studies RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of sulfanilamide derivative for diagnosis and treatment of tumor)

ANSWER 9 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN L7

2000:176258 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 132:303120

Carbonic anhydrase inhibitor suppresses invasion of TITLE:

renal cancer cells in vitro

Parkkila, Seppo; Rajaniemi, Hannu; Parkkila, AUTHOR(S):

Anna-Kaisa; Kivela, Jyrki; Waheed, Abdul; Pastorekova,

Silvia; Pastorek, Jaromir; Sly, William S.

Departments of Anatomy and Cell Biology, Clinical CORPORATE SOURCE:

Chemistry, 90014 University of Oulu, Finland

Proceedings of the National Academy of Sciences of the SOURCE:

United States of America (2000), 97(5), 2220-2224

CODEN: PNASA6; ISSN: 0027-8424 National Academy of Sciences

PUBLISHER: DOCUMENT TYPE: Journal

LANGUAGE: English

Acidification of the extracellular milieu of malignant tumors is reported to increase the invasive behavior of cancer cells. In normal tissues, production of acid is catalyzed by carbonic anhydrases (CAs), some of which are known to be overexpressed in certain cancers. To investigate the functional role of CA activity in such cancer cells, the authors analyzed the effect of acetazolamide, a potent CA inhibitor, on the invasive capacity of four renal carcinoma cell lines (Caki-1, Caki-2, ACHN, and A-498). The authors found that $10 \mu M$ acetazolamide inhibited the relative invasion rate of these cell lines between 18-74%. The Caki-2 and ACHN cell lines displayed the highest responsiveness, and their responses clearly depended on the acetazolamide concentration in the culture medium. Immunocytochem. and Western blotting results identified the presence of CA isoenzyme II in the cytoplasm of all four cell lines and CA XII on the plasma membrane in three of four cell lines. Because acetazolamide alone reduced invasiveness of these cancer cells in vitro, the authors conclude that the CAs overexpressed in these renal cancer cells contribute to invasiveness, at least in vitro, and suggest that CA inhibitors may also reduce invasiveness in other tumors that overexpress one or more CAs. REFERENCE COUNT:

THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

59-66-5, Acetazolamide IT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(role of carbonic anhydrase in invasion of renal cancer cells in vitro and possible therapeutic role of carbonic anhydrase inhibitor .

acetazolamide)

L7 ANSWER 16 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:537618 CAPLUS

DOCUMENT NUMBER: 127:130994

TITLE: Use of carbonic anhydrase inhibitors to prepare a drug

for cancer therapy

INVENTOR(S): Lang, Hans Jochen; Gericke, Dietmar

PATENT ASSIGNEE(S): Hoechst A.-G., Germany; Lang, Hans Jochen; Gericke,

Dietmar

SOURCE: PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE: LANGUAGE:

Patent German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PA'	rent	NO.			KIN	D	DATE	E APPLICATIO			ION 1	NO. DATE						
WO	9725	039			A1	_	1997	0717	Ī	WO 1	996-	EP57	93		1	9961:	220	
	W:	AL,	AM,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CN,	CU,	CZ,	EE,	GE,	HU,	
		ΙL,	IS,	JP,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,	LT,	LV,	MD,	MG,	MK,	MN,	
		MX,	NO,	NΖ,	PL,	RO,	RU,	SG,	SI,	SK,	ТJ,	TM,	TR,	TT,	UA,	US,	UZ,	VN
	RW.:	KΕ,	LS,	MW,	SD,	SZ,	UG,	AT,	BE,	CH,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	
		ΙE,	ΙΤ,	LU,	MC,	NL,	PT,	SE,	BF,	ΒJ,	CF,	CG,	CI,	CM,	GA,	GN,	ML,	
		MR,	NE,	SN,	TD,	ΤG											•	
DE	1960	0721			A1		1997	0717]	DE 1	996-	1960	0721		1	9960:	112	
AU	9713	046			A1		1997	0801	ž	AU 1	997-	1304	6		1	9961:	220	
PRIORITY	Y APP	LN.	INFO	. :					3	DE 1	996-	1960	0721		A 1	9960:	112	
									I	WO 1	996-	EP57	93	1	W 1	9961	220	

AB Carbonic anhydrase inhibitors such as acetazolamide are useful, alone or in association with chemotherapeutic agents, phys. treatments such as radiation therapy, or immunomodulators, for treatment of cancer (no data).

IT 59-66-5, Acetazolamide

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(use of carbonic anhydrase inhibitors for cancer therapy)

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http://www.cas.org/ONLINE/UG/regprops.html

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=> s 19 and 12

L10 1 L9 AND L2

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Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

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SAM - Index Name, MF, and structure - no RN FIDE - All substance data, except sequence data

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IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data

SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used

SQD - Protein sequence data, includes RN

SQD3 - Same as SQD, but 3-letter amino acid codes are used

SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties
EPROP - Table of experimental properties

PROP - EPROP and CALC

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

ABS -- Abstract

APPS -- Application and Priority Information

BIB -- CA Accession Number, plus Bibliographic Data

CAN -- CA Accession Number

CBIB -- CA Accession Number, plus Bibliographic Data (compressed)

IND -- Index Data

IPC -- International Patent Classification

PATS -- PI, SO

STD -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels

IBIB -- BIB, indented, with text labels

ISTD -- STD format, indented

OBIB ----- AN, plus Bibliographic Data (original) OIBIB ----- OBIB, indented with text labels

SPIR ----- PIR no citations

SBIB ----- BIB, no citations SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL. The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

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FILE COVERS 1907 - 28 Sep 2006 VOL 145 ISS 14 FILE LAST UPDATED: 27 Sep 2006 (20060927/ED)

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=> d his

L9

(FILE 'HOME' ENTERED AT 12:44:18 ON 28 SEP 2006)

FILE 'CAPLUS' ENTERED AT 12:44:27 ON 28 SEP 2006 L1 1 S US 20040146955/PN SEL RN

FILE 'REGISTRY' ENTERED AT 12:44:43 ON 28 SEP 2006 L2 108 S E1-E108

FILE 'REGISTRY' ENTERED AT 12:50:27 ON 28 SEP 2006 1 S 59-66-5 FILE 'CAPLUS' ENTERED AT 12:51:02 ON 28 SEP 2006

=> d 17 hitstr 1-18

L7 ANSWER 1 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN IT 165668-41-7, Indisulam

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(indisulam for potential treatment of cancer)

RN 165668-41-7 CAPLUS

CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)

L7 ANSWER 2 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

IT 165668-41-7, E7070

RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (E7070, a novel synthetic sulfonamide targeting the cell cycle progression for treatment of cancer)

RN 165668-41-7 CAPLUS

CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)

/ Structure 2 in file .gra /

L7 ANSWER 3 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

IT 165668-41-7, E7070

RL: ADV (Adverse effect, including toxicity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (E7070 excretion and pharmacokinetics in cancer patients)

RN 165668-41-7 CAPLUS

CN 1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX NAME)

/ Structure 3 in file .gra /

L7 ANSWER 4 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

IT 165668-41-7, E7070

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(pharmacokinetic study of E7070 infusion, novel chloroindolyl sulfonamide cell-cycle inhibitor, in advanced cancer

```
RN
     165668-41-7
                 CAPLUS
CN
     1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX
/ Structure 4 in file .gra /
     ANSWER 5 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
L7
IT
     59-66-5, Acetazolamide
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (acetazolamide suppresses tumor metastasis and related
        protein expression in mice bearing Lewis lung carcinoma)
     59-66-5 CAPLUS
RN
     Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]-(9CI)
CN
     NAME)
/ Structure 5 in file .gra /
L7
     ANSWER 6 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT
     59-66-5, Acetazolamide
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (brain tumor chemotherapy using nasal delivery of drug to
        cerebrospinal fluid: effect of excipients)
     59-66-5 CAPLUS
RN
   , Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX
    NAME)
/ Structure 6 in file .gra /
L7
     ANSWER 7 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT
     165668-41-7, E7070
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (mechanisms of action of novel sulfonamide anticancer agent E7070 on
        cell cycle progression in human non-small cell lung cancer
        cells)
     165668-41-7 CAPLUS
RN
     1,4-Benzenedisulfonamide, N-(3-chloro-1H-indol-7-yl)- (9CI) (CA INDEX
CN
     NAME)
/ Structure 7 in file .gra /
L7
     ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
     63-74-1D, Sulfanilamide, antitumor derivs.
IT
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (preparation of sulfanilamide derivative for diagnosis and treatment of
        tumor)
RN
     63-74-1 CAPLUS
CN
     Benzenesulfonamide, 4-amino- (9CI)
                                        (CA INDEX NAME)
/ Structure 8 in file .gra /
```

patients)

```
ANSWER 9 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
TΤ
     59-66-5, Acetazolamide
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (role of carbonic anhydrase in invasion of renal cancer cells
        in vitro and possible therapeutic role of carbonic anhydrase inhibitor
        acetazolamide)
     59-66-5 CAPLUS
RN
     Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX
CN
     NAME)
/ Structure 9 in file .gra /
L7
     ANSWER 10 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
IT
     59-66-5
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (transnasal delivery of anticancer drugs to brain tumor)
RN
     59-66-5 CAPLUS
CN
     Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]-(9CI)
                                                                    (CA INDEX
     NAME)
/ Structure 10 in file .gra /
L7 . ANSWER 11 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
     59-66-5, Acetazolamide
     RL: ADV (Adverse effect, including toxicity); THU (Therapeutic
     use); BIOL (Biological study); USES (Uses)
        (Chinese herbs nephropathy-associated slimming regimen induces
        tumors in the forestomach but no interstitial nephropathy in
        rats)
     59-66-5
RN
             CAPLUS
     Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]- (9CI) (CA INDEX
CN
/ Structure 11 in file .gra /
     ANSWER 12 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
L7
TT
     9001-03-0
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified);
     THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence);
     USES (Uses)
        (II; carbonic anhydrase II as a marker of malignant features for
        colorectal cancer)
RN
     9001-03-0 CAPLUS
CN
     Dehydratase, carbonate (9CI)
                                   (CA INDEX NAME)
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
     ANSWER 13 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
L7
IT
     9001-03-0, Carbonic anhydrase
     RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical
     study); BIOL (Biological study); USES (Uses)
        (II; rapid method of cancer diagnosis by measuring activation
        of carbonic anhydrase II by blood serum tumor markers)
RN
     9001-03-0 CAPLUS
CN
     Dehydratase, carbonate (9CI) (CA INDEX NAME)
```

L7

```
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    ANSWER 14 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
T.7
TΤ
     9001-03-0, Carbonic anhydrase
     RL: BOC (Biological occurrence); BSU (Biological study, unclassified);
    THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence);
     USES (Uses)
        (isoenzyme IX; colorectal tumors expression of transmembrane
        carbonic anhydrase, MN/CA IX, with potential value as marker of cell
        proliferation in human)
RN
     9001-03-0 CAPLUS
     Dehydratase, carbonate (9CI)
                                   (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    ANSWER 15 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
L7
IT
     9001-03-0, Carbonate anhydrase
    RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical
     study); BIOL (Biological study); USES (Uses)
        (fecal; immunoassay of carbonic anhydrase for screening colon
        cancer)
RN
     9001-03-0 CAPLUS
     Dehydratase, carbonate (9CI) (CA INDEX NAME)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
L7
    ANSWER 16 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
TT
     59-66-5, Acetazolamide
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (use of carbonic anhydrase inhibitors for cancer therapy)
RN
     59-66-5 CAPLUS
     Acetamide, N-[5-(aminosulfonyl)-1,3,4-thiadiazol-2-yl]-(9CI)
CN
                                                                    (CA INDEX
     NAME)
/ Structure 12 in file .gra /
    ANSWER 17 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
L7
     9001-03-0, Carbonic anhydrase
IT
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (as marker for non-small cell lung cancer; marker antigen for
        non-small cell lung cancer and cDNA encoding it and their
        uses)
RN
     9001-03-0 CAPLUS
                                  (CA INDEX NAME)
     Dehydratase, carbonate (9CI)
CN
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
    ANSWER 18 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN
1.7
ΤТ
     654-62-6
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (neoplasm inhibition by)
RN
     654-62-6 CAPLUS
CN
     1,3-Benzenedisulfonamide, 4-amino-6-(trifluoromethyl)- (9CI) (CA INDEX
     NAME)
/ Structure 13 in file .gra /
```

L7 ANSWER 8 OF 18 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:455364 CAPLUS

DOCUMENT NUMBER: 133:38216

TITLE: Preparation of sulfanilamide derivative for diagnosis

and treatment of tumor

INVENTOR(S): Tan, Lisong; Li, Libin; Su, Bo

PATENT ASSIGNEE(S): Shanghai No.1 Pulmonary Department Hospital, Peop.

Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 24 pp.

CODEN: CNXXEV

DOCUMENT TYPE: LANGUAGE: Patent Chinese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1214264	A	19990421	CN 1997-106657	19971015
PRIORITY APPLN. INFO.:			CN 1997-106657	19971015
AB The sulfanilamide	derivati	ve R1-1,4-	phenylene-SO2-N(R2)-L-R3	(R1 = NH2,

, CH3, or CH3CONH, etc.; R2 = pyrimidinyl, pyrazinyl, or other heterocycle; L = polyglycol, metyleneformylhexanediamine, or methylenecarbonylaminohexanoic acid, etc.; and R3 = anti-tumor drug, or complexant for 111In, 99mTc; 188Re, 186Re, 90Y, or 67Cu, etc.) is used for diagnosis and treatment of tumor. The sulfanilamide intermediate (I) (N-acetylsulfadiazine-PEGisopropanol-butanediamine) is prepared by dissolving sulfadiazine in NaOH solution, regulating pH to 10-11, precipitating with ethanol, polymerizing with epoxyethane at 85° for 3-5 d, terminating with methanol to obtain N-acetylsulfadiazine-PEG, acetylating with acetic anhydride in NaHCO3 buffer solution (pH 9.0-10.0), allowing to react with chloromethyloxirane at 50° for 3 h, and substituting with butanediamine in the presence of The sulfanilamide intermediate (II) (N-acetylsulfadiazinemethylenecarboxylhexanediamine) is prepared by acetylating sulfadiazine with acetic anhydride for 30 min, dissolving in NaOH solution, condensation with iodoacetic acid at 55° and pH 10-11 for 5 h, substituting with hexanediamine in the presence of DCCI and in THF at 4° for 2, and extracting with butanol. The sulfanilamide derivative is prepared by dissolving (I)

in chloroform, condensation with cyclic DTPA for 24 h, precipitating with ${\tt EtOAc}$,

and recrystg. with chloroform or EtOAc. The sulfanilamide derivative-drug composite is prepared by condensation of the sulfanilamide derivative with activated drug in NaHCO3 buffer solution (pH 9.0) for 30 min, and separating

Sephadex G10 or LH20 column chromatog. Sulfadiazine may be replaced by sulfapyrazine. The activated drug is selected from carboxy-activated methotrexate, pentanedioic acid-activated mitomycin C, and pentanedioic acid-activated adriamycin.

IT 63-74-1D, Sulfanilamide, antitumor derivs.

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of sulfanilamide derivative for diagnosis and treatment of tumor)

RN 63-74-1 CAPLUS

with

CN Benzenesulfonamide, 4-amino- (9CI) (CA INDEX NAME)

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                 has been enhanced and reloaded
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                 CHEMLIST enhanced with new search and display field
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      5
         NOV 03
                 JAPIO enhanced with IPC 8 features and functionality
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      6
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                 CA/CAplus F-Term thesaurus enhanced
NEWS
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                 STN Express with Discover! free maintenance release Version
                 8.01c now available
NEWS
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                 to 50,000
NEWS 9
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         DEC 11
                 CAS REGISTRY chemical nomenclature enhanced
NEWS 11
         DEC 14
                 WPIDS/WPINDEX/WPIX manual codes updated
NEWS 12
         DEC 14
                 GBFULL and FRFULL enhanced with IPC 8 features and
                 functionality
NEWS 13
         DEC 18
                 CA/CAplus pre-1967 chemical substance index entries enhanced
                 with preparation role
NEWS 14
         DEC 18
                 CA/CAplus patent kind codes updated
NEWS 15
         DEC 18
                MARPAT to CA/CAplus accession number crossover limit increased
                 to 50,000
NEWS 16
         DEC 18
                 MEDLINE updated in preparation for 2007 reload
NEWS 17
         DEC 27
                 CA/CAplus enhanced with more pre-1907 records
NEWS 18
         JAN 08
                 CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 19
         JAN 16
                 CA/CAplus Company Name Thesaurus enhanced and reloaded
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NEWS 20 JAN 16 IPC version 2007.01 thesaurus available on STN NEWS 21 JAN 16 WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data

NEWS 22 JAN 22 CA/Caplus updated with revised CAS roles

NEWS 23 JAN 22 CA/Caplus enhanced with patent applications from India

NEWS 24 JAN 29 PHAR reloaded with new search and display fields

NEWS 25 JAN 29 CAS Registry Number crossover limit increased to 300,000 in multiple databases

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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ENTRY SESSION
0.21 0.21

FULL ESTIMATED COST

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FILE COVERS 1907 - 31 Jan 2007 VOL 146 ISS 6 FILE LAST UPDATED: 30 Jan 2007 (20070130/ED)

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=> s l1/dgn

2763 L1

73491 DGN/RL

L2 11 L1/DGN

(L1 (L) DGN/RL)

=> s 11

L3 2763 L1

=> s tumor? or cancer? or neoplas?

456608 TUMOR?

319712 CANCER?

479213 NEOPLAS?

L4 756547 TUMOR? OR CANCER? OR NEOPLAS?

=> s 13 (L) 14

L5 37 L3 (L) L4

=> s 15 and 12

L6 0 L5 AND L2

=> s sulfonamid?

L7 34242 SULFONAMID?

=> s 17 (L) 14

L8 672 L7 (L) L4

=> s diagnos?

L9 275619 DIAGNOS?

=> s 19 and 18

L10 22 L9 AND L8

=> s carbonic anhydrase

44312 CARBONIC

1 CARBONICS

44313 CARBONIC

(CARBONIC OR CARBONICS)

12249 ANHYDRASE 713 ANHYDRASES

12291 ANHYDRASE

(ANHYDRASE OR ANHYDRASES)

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(CARBONIC (W) ANHYDRASE)

=> s 111 and 12

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=> s 112 and 13

L13 0 L12 AND L3

 \Rightarrow s 111 and 13

L14 1069 L11 AND L3

=> s 114 and 14

L15 45 L14 AND L4

=> s 114 and 15

L16 13 L14 AND L5

=> s 116 not py>2002

4850131 PY>2002

L17 4 L16 NOT PY>2002

=> d ibib 1-4

L17 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

2000:176258 CAPLUS

DOCUMENT NUMBER:

132:303120

TITLE:

Carbonic anhydrase inhibitor

suppresses invasion of renal cancer cells in vitro

AUTHOR(S): Parkkila, Seppo; Rajaniemi, Hannu; Parkkila,

Anna-Kaisa; Kivela, Jyrki; Waheed, Abdul; Pastorekova,

Silvia; Pastorek, Jaromir; Sly, William S.

CORPORATE SOURCE:

Departments of Anatomy and Cell Biology, Clinical

Chemistry, 90014 University of Oulu, Finland

SOURCE:

Proceedings of the National Academy of Sciences of the

United States of America (2000), 97(5), 2220-2224

CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER:

National Academy of Sciences

DOCUMENT TYPE:

Journal

LANGUAGE:

English

REFERENCE COUNT:

26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L17 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

1997:537618 CAPLUS

DOCUMENT NUMBER:

127:130994

TITLE:

Use of carbonic anhydrase

inhibitors to prepare a drug for cancer therapy

INVENTOR(S):

Lang, Hans Jochen; Gericke, Dietmar

PATENT ASSIGNEE(S):

Hoechst A.-G., Germany; Lang, Hans Jochen; Gericke,

Dietmar

SOURCE:

PCT Int. Appl., 16 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 9725039	A 1	19970717	WO 1996-EP5793	19961220

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W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HU,
             IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN,
             MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN
         RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
             IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
             MR, NE, SN, TD, TG
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                                                                  19960112
                                           AU 1997-13046
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                                                                  19961220
    AU 9713046
PRIORITY APPLN. INFO.:
                                                               A 19960112
                                           DE 1996-19600721
                                           WO 1996-EP5793
                                                               W 19961220
L17 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:
                        1991:178180 CAPLUS
DOCUMENT NUMBER:
                        114:178180
                        Treatment of humoral hypercalcemia of malignancy in
TITLE:
                         rats with inhibitors of carbonic
                         anhydrase
                         Brown, Gregory M.; Morris, Carol A.; Mitnick, Mary
AUTHOR(S):
                         Ann; Insogna, Karl L.
                         Sch. Med., Yale Univ., New Haven, CT, 06510, USA
CORPORATE SOURCE:
                         Journal of Bone and Mineral Research (1990), 5(10),
SOURCE:
                         1037-41
                         CODEN: JBMREJ; ISSN: 0884-0431
DOCUMENT TYPE:
                         Journal
                         English
LANGUAGE:
L17 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
                        1986:10594 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                         104:10594
TITLE:
                         Antitumor pharmaceuticals containing
                         1-phthalidyl-5-fluorouracil and sulfonamides
                         Shionogi and Co., Ltd., Japan
PATENT ASSIGNEE(S):
                         Jpn. Kokai Tokkyo Koho, 12 pp.
SOURCE:
                         CODEN: JKXXAF
DOCUMENT TYPE:
                         Patent
                         Japanese
LANGUAGE:
FAMILY ACC. NUM. COUNT:
PATENT INFORMATION:
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                         KIND
                                DATE
                                           APPLICATION NO.
                                                                   DATE
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     _____
                        ____
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     JP 60126219
                         A
                                19850705
                                           JP 1983-233269
                                                                   19831209
PRIORITY APPLN. INFO.:
                                          JP 1983-233269
                                                                   19831209
=> d kwic 2-4
    ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
L17
     Use of carbonic anhydrase inhibitors to prepare a drug
TΙ
     for cancer therapy
     Carbonic anhydrase inhibitors such as acetazolamide
AB
     are useful, alone or in association with chemotherapeutic agents, phys.
     treatments such as radiation therapy, or.
     carbonic anhydrase inhibitor cancer therapy
ST
IT
     Antitumor agents
        (use of carbonic anhydrase inhibitors for cancer
        therapy)
IT
     9001-03-0, Carbonic anhydrase
     RL: BSU (Biological study, unclassified); BIOL (Biological study)
        (inhibitors; use of carbonic anhydrase inhibitors
        for cancer therapy)
ΙT
     59-66-5, Acetazolamide
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
```

(Uses)

(use of carbonic anhydrase inhibitors for cancer therapy)

```
ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
L17
     Treatment of humoral hypercalcemia of malignancy in rats with inhibitors
TΙ
     of carbonic anhydrase
     The enzyme carbonic anhydrase has been suggested as a
AB
     critical participant in osteoclast-mediated bone resorption. In humoral
     hypercalcemia of malignancy (HHM), intense osteoclastic bone resorption is
     principally responsible for the observed hypercalcemia. The effect of the
     carbonic anhydrase inhibitor acetazolamide on the
     hypercalcemia induced by the H500 Leydig cell tumor in Fisher rats, a
     well-described model of HHM,. . . in serum phosphorus, urine calcium,
     urine phosphorus, or nephrogenous cAMP excretion between the two groups.
     Acetazolamide and HTs [5-(3-hydroxybenzoy1)-2-thiophenesulfonamide],
     another carbonic anhydrase inhibitor, both
     significantly inhibited in vitro bone resorption induced by 5 + 10-9
     M 36Tyr(1-36)-PTHrP-amide (PTHrP, parathyroid hormone-related protein).
     Acetazolamide.
     carbonic anhydrase inhibitor hypercalcemia malignancy
ST
TΤ
     Osteoclast
        (bone resorption by, carbonic anhydrase inhibitors
        effect on, in neoplasm)
ΙT
     Neoplasm
        (hypercalcemia in, carbonic anhydrase inhibitors
        treatment of, bone resorption response in)
IT
     Resorption
        (of bone, carbonic anhydrase inhibitors effect on,
        in neoplasm)
ΙT
     Bone, metabolism
        (resorption of, carbonic anhydrase inhibitors
        effect on)
ΙT
     59-66-5, Acetazolamide
                              114891-23-5, 5-(3-Hydroxybenzoyl)-2-
     thiophenesulfonamide
     RL: BIOL (Biological study)
        (hypercalcemia treatment with, in neoplasm, bone resorption
        response in)
TΤ
     9001-03-0, Carbonic anhydrase
     RL: BIOL (Biological study)
        (inhibitors of, hypercalcemia treatment with, in neoplasm, bone
        resorption response in)
IT 7440-70-2, Calcium, biological studies
     RL: BIOL (Biological study)
        (metabolic disorders, hypercalcemia, treatment of, with
        carbonic anhydrase inhibitors, in neoplasm)
    ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
L17
     Antitumor formulations consist of 1-phthalidyl-5-fluoromuracil (I)
AΒ
     [81820-68-0] and carbonic anhydrase-inhibiting
     sulfonamides (R1SO2NR2R3, where R1 = substituted thienyl, thiazolyl,
     thiadiazolyl, Ph; R2, R3 = H, substituted alkyl, aryl, acyl and Bz).
        In Yoshida sarcoma-bearing mice, combined oral administration of I
     (400 mg/kg/day) and sulfanilamide [63-74-1] (200 mg/kg/day) decreased the
     relative tumor size from 1.00 in controls to 0.18 compared to
     only 0.41 when I is administered alone. Thus, tablets were prepared containing
     I 100, acetazolamide [59-66-5] 10, lactose 200, wheat starch
     01, hydroxypropylcellulose 4 and Mg stearate 2 mg.
                         72-14-0
                                   133-67-5
                                              515-64-0
ΙT
     59-66-5
               63-74-1
                                                         723-46-6
     4563-84-2
     RL: BIOL (Biological study)
        (antitumor pharmaceuticals containing phthalidylfluorouracil and)
```

---Logging off of STN---

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COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 32.07 37.68 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION -2.34CA SUBSCRIBER PRICE -2.34

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NEWS 23 JAN 22 CA/CAplus enhanced with patent applications from India

NEWS 24 JAN 29 PHAR reloaded with new search and display fields

NEWS 25 JAN 29 CAS Registry Number crossover limit increased to 300,000 in multiple databases

NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

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NEWS IPC8 For general information regarding STN implementation of IPC 8

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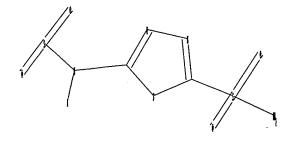
TSCA INFORMATION NOW CURRENT THROUGH June 30, 2006

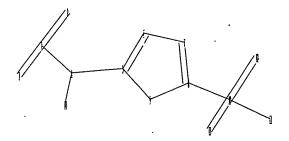
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REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

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chain nodes :

1 2 3 4 10 11 12 13 14

ring nodes : 5 6 7 8 9

chain bonds :

4-5 4-14 8-10 10-11 10-12 10-13 1-4 1-2 1-3

ring bonds :

5-6 5-9 6-7 7-8 8-9 exact/norm bonds :

 $1-4 \quad 1-2 \quad 1-3 \quad 4-5 \quad 5-6 \quad 5-9 \quad 6-7 \quad 7-8 \quad 8-9 \quad 8-10 \quad 10-11 \quad 10-12 \quad 10-13$

exact bonds :

4 - 14

Match level:

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom

10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS

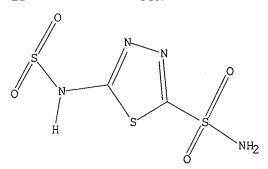
L1 STRUCTURE UPLOADED

-> d 11

L1 HAS NO ANSWERS

L1

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SAMPLE SEARCH INITIATED 14:45:36 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 11 TO ITERATE

100.0% PROCESSED

11 ITERATIONS

8 ANSWERS

SEARCH TIME: 00.00.01

ONLINE FULL FILE PROJECTIONS: **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS:

22 TO 418

PROJECTED ANSWERS: 8 TO 329

L2 8 SEA SSS SAM L1

=> s 11 full FULL SEARCH INITIATED 14:45:46 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 351 TO ITERATE

100.0% PROCESSED 351 ITERATIONS 218 ANSWERS

SEARCH TIME: 00.00.01

L3 218 SEA SSS FUL L1

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=> s 13/dgn

199 L3

73556 DGN/RL

L4 0 L3/DGN

(L3 (L) DGN/RL)

=> s 13

L5 199 L3

=> s tumor? or neoplas? or cancer?

456707 TUMOR?

479316 NEOPLAS?

319785 CANCER?

L6 756702 TUMOR? OR NEOPLAS? OR CANCER?

=> s 16 and 15

L7 26 L6 AND L5

=> s 17 not py>2002

4853307 PY>2002

L8 4 L7 NOT PY>2002

=> d ibib 1-4

ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN 18

2001:322273 CAPLUS ACCESSION NUMBER:

135:55472 DOCUMENT NUMBER:

TITLE: Carbonic anhydrase inhibitors: 88. Sulfonamides as

antitumor agents?

Supuran, Claudiu T.; Briganti, Fabrizio; Tilli, AUTHOR(S):

Silvia; Chegwidden, W. Richard; Scozzafava, Andrea Laboratorio di Chimica Inorganica e Bioinorganica,

Universita degli Studi, Laboratorio di Chimica

Inorganica e Bioinorganica, Florence, I-50121, Italy Bioorganic & Medicinal Chemistry (2001), 9(3), 703-714

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal English LANGUAGE:

CORPORATE SOURCE:

SOURCE:

OTHER SOURCE(S): CASREACT 135:55472

REFERENCE COUNT: 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN rs

ACCESSION NUMBER: 2000:696271 CAPLUS

DOCUMENT NUMBER: 133:344324

TITLE: Carbonic anhydrase inhibitors - Part 94.

1,3,4-Thiadiazole-2-sulfonamide derivatives as

antitumor agents?

Supuran, Claudiu T.; Scozzafava, Andrea AUTHOR(S):

Universita degli Studi, Laboratorio di Chimica CORPORATE SOURCE:

Inorganica e Bioinorganica, Florence, I-50121, Italy

European Journal of Medicinal Chemistry (2000), 35(9), SOURCE:

867-874

CODEN: EJMCA5; ISSN: 0223-5234

PUBLISHER: Editions Scientifiques et Medicales Elsevier

DOCUMENT TYPE: Journal LANGUAGE: English

THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 31

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN L8

2000:379680 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 133:171930

Carbonic anhydrase inhibitors: synthesis of TITLE:

N-morpholylthiocarbonylsulfenylamino

aromatic/heterocyclic sulfonamides and their

interaction with isozymes I, II and IV Scozzafava, Andrea; Supuran, Claudiu T.

AUTHOR(S):

Universita degli Studi, Laboratorio di Chimica CORPORATE SOURCE:

Inorganica e Bioinorganica, Florence, I-50121, Italy

SOURCE: Bioorganic & Medicinal Chemistry Letters (2000),

10(10), 1117-1120 CODEN: BMCLE8; ISSN: 0960-894X

Elsevier Science Ltd. PUBLISHER:

Journal DOCUMENT TYPE: LANGUAGE: English

22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT:

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1964:457068 CAPLUS

DOCUMENT NUMBER: 61:57068 ORIGINAL REFERENCE NO.: 61:9923b-e

TITLE: The anticonvulsive action of acetazolamide, its

derivatives, and some other sulfonamides

AUTHOR(S): Gores, E.; Hilgetag, G.; Jung, F.

CORPORATE SOURCE: Humboldt Univ., Berlin SOURCE: Acta Physiologica Academiae Scientiarum Hungaricae

(1961), 19, 95-102 From: CZ 1962(6), 2078.

CODEN: APACAB; ISSN: 0001-6756

DOCUMENT TYPE: Journal LANGUAGE: German

=> d ibib 1-4 abs kwic

SOURCE:

L8 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:322273 CAPLUS

DOCUMENT NUMBER: 135:55472

TITLE: Carbonic anhydrase inhibitors: 88. Sulfonamides as

antitumor agents?

AUTHOR(S): Supuran, Claudiu T.; Briganti, Fabrizio; Tilli, Silvia; Chegwidden, W. Richard; Scozzafava, Andrea

CORPORATE SOURCE: Laboratorio di Chimica Inorganica e Bioinorganica,

Universita degli Studi, Laboratorio di Chimica

Inorganica e Bioinorganica, Florence, I-50121, Italy Bioorganic & Medicinal Chemistry (2001), 9(3), 703-714

CODEN: BMECEP; ISSN: 0968-0896

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal LANGUAGE: English

OTHER SOURCE(S): CASREACT 135:55472

Novel sulfonamide inhibitors of the zinc enzyme carbonic anhydrase (CA, EC 4.2.1.1) were prepared by reaction of aromatic or heterocyclic sulfonamides containing amino, imino, or hydrazino moieties with N,Ndialkyldithiocarbamates in the presence of oxidizing agents (sodium hypochlorite or iodine). The N, N-dialkylthiocarbamylsulfenamidosulfonamides synthesized in this way behaved as strong inhibitors of human CA I and CA II (hCA I and hCA II) and bovine CA IV (bCA IV). For the most active compds., inhibition consts. ranged from 10-8 to 10-9 M (for isoenzymes II and IV). Three of the derivs. belonging to this new class of CA inhibitors were also tested as inhibitors of tumor cell growth in vitro. These sulfonamides showed potent inhibition of growth against several leukemia, non-small cell lung, ovarian, melanoma, colon, CNS, renal, prostate and breast cancer cell lines. With several cell lines, GI50 values of 10-75 nM were observed. The mechanism of antitumor action with the new sulfonamides reported here remains obscure, but may involve inhibition of CA isoenzymes which predominate in tumor cell membranes (CA IX and CA XII), perhaps causing acidification of the intercellular milieu, or inhibition of intracellular isoenzymes which provide bicarbonate for the synthesis of nucleotides and other essential cell components (CA II and CA V). Optimization of these derivs. from the SAR point of view, might lead to the development of effective novel types of anticancer agents.

REFERENCE COUNT: 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Novel sulfonamide inhibitors of the zinc enzyme carbonic anhydrase (CA, EC AB 4.2.1.1) were prepared by reaction of aromatic or heterocyclic sulfonamides containing amino, imino, or hydrazino moieties with N,Ndialkyldithiocarbamates in the presence of oxidizing agents (sodium hypochlorite or iodine). The N, N-dialkylthiocarbamylsulfenamidosulfonamides synthesized in this way behaved as strong inhibitors of human CA I and CA II (hCA I and hCA II) and bovine CA IV (bCA IV). For the most active compds., inhibition consts. ranged from 10-8 to 10-9 M (for isoenzymes II and IV). Three of the derivs. belonging to this new class of CA inhibitors were also tested as inhibitors of tumor cell growth in vitro. These sulfonamides showed potent inhibition of growth against several leukemia, non-small cell lung, ovarian, melanoma, colon, CNS, renal, prostate and breast cancer cell lines. With several cell lines, GI50 values of 10-75 nM were observed. The mechanism of antitumor action with the new sulfonamides reported here remains obscure, but may

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    intercellular milieu, or inhibition of intracellular isoenzymes which
    provide bicarbonate for the synthesis of nucleotides and other essential
    cell components (CA II and CA V). Optimization of these derivs. from the
    SAR point of view, might lead to the development of effective novel types
    of anticancer agents.
IT
     63-74-1
               98-18-0
                         121-30-2
                                    138-39-6
                                               547-52-4
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                 3306-62-5 3523-95-3
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    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); RCT (Reactant); BIOL (Biological study); RACT
     (Reactant or reagent)
        (sulfonamide carbonic anhydrase inhibitors as antitumor agents)
IT
     345970-49-2P
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    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); BIOL (Biological
     study); PREP (Preparation)
        (sulfonamide carbonic anhydrase inhibitors as antitumor agents)
TΤ
                  306314-22-7
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
     (Uses)
        (sulfonamide carbonic anhydrase inhibitors as antitumor agents)
    ANSWER 2 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:
                         2000:696271 CAPLUS
DOCUMENT NUMBER:
                         133:344324
TITLE:
                         Carbonic anhydrase inhibitors - Part 94.
                         1,3,4-Thiadiazole-2-sulfonamide derivatives as
                         antitumor agents?
                         Supuran, Claudiu T.; Scozzafava, Andrea
AUTHOR(S):
                         Universita degli Studi, Laboratorio di Chimica
CORPORATE SOURCE:
                         Inorganica e Bioinorganica, Florence, I-50121, Italy
SOURCE:
                         European Journal of Medicinal Chemistry (2000), 35(9),
                         867-874
                         CODEN: EJMCA5; ISSN: 0223-5234
PUBLISHER:
                         Editions Scientifiques et Medicales Elsevier
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         English
     Potent sulfonamide inhibitors of the zinc enzyme carbonic anhydrase (CA,
     EC 4.2.1.1), derivs. of 1,3,4-thiadiazole-2-sulfonamide, possessing
     inhibition consts. in the range of 10-8-10-9 M against isoenzymes II and
     IV, were shown to act as efficient in vitro tumor cell growth
     inhibitors with GI50 (molarity of inhibitor producing a 50% inhibition of
     tumor cell growth) values typically in the range of 0.1-30~\mu\text{M}
     against several leukemia, non-small cell lung cancer, ovarian,
     melanoma, colon, CNS, renal, prostate and breast cancer cell
            The mechanism of antitumor action with the new sulfonamides
     reported here is unknown, but it might involve either inhibition of
     several CA isoenzymes (such as CA IX, CA XII, CA XIV) present
     predominantly in tumor cell membranes, acidification of the
     intracellular environment as a consequence of CA inhibition, uncoupling of
```

mitochondria and/or strong CA V inhibition, or a combination of several

involve inhibition of CA isoenzymes which predominate in tumor

such mechanisms. Such derivs. might lead to the development of effective novel types of anticancer agents/therapies.

THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 31 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Potent sulfonamide inhibitors of the zinc enzyme carbonic anhydrase (CA, EC 4.2.1.1), derivs. of 1,3,4-thiadiazole-2-sulfonamide, possessing

inhibition consts. in the range of 10-8-10-9 M against isoenzymes II and IV, were shown to act as efficient in vitro tumor cell growth

inhibitors with GI50 (molarity of inhibitor producing a 50% inhibition of

tumor cell growth) values typically in the range of 0.1-30 μM

against several leukemia, non-small cell lung cancer, ovarian, melanoma, colon, CNS, renal, prostate and breast cancer cell

lines. The mechanism of antitumor action with the new sulfonamides reported here is unknown, but it might involve either inhibition of

several CA isoenzymes (such as CA IX, CA XII, CA XIV) present predominantly in tumor cell membranes, acidification of the

intracellular environment as a consequence of CA inhibition, uncoupling of mitochondria and/or strong CA V inhibition, or a combination of several such mechanisms. Such derivs. might lead to the development of effective

novel types of anticancer agents/therapies.

25182-53-ODP, 1,3,4-Thiadiazole-2-sulfonamide, derivs. 86029-44-9P

97919-22-7P, CQS 141430-65-1P, E 7010 90110-89-7P

196512-72-8P 165668-41-7P, E 7070 144462-41-9P 207795-80-0P

207796-05-2P 306314-22-7P

AB

ΙT

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(carbonic anhydrase inhibitors: 1,3,4-thiadiazole-2-sulfonamide derivs. as antitumor agents)

ANSWER 3 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN L8

2000:379680 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 133:171930

Carbonic anhydrase inhibitors: synthesis of TITLE:

N-morpholylthiocarbonylsulfenylamino

aromatic/heterocyclic sulfonamides and their

interaction with isozymes I, II and IV Scozzafava, Andrea; Supuran, Claudiu T.

AUTHOR(S): CORPORATE SOURCE: Universita degli Studi, Laboratorio di Chimica

Inorganica e Bioinorganica, Florence, I-50121, Italy

Bioorganic & Medicinal Chemistry Letters (2000), SOURCE:

10(10), 1117-1120 CODEN: BMCLE8; ISSN: 0960-894X

PUBLISHER: Elsevier Science Ltd.

Journal DOCUMENT TYPE: English LANGUAGE:

Several aromatic/heterocyclic sulfonamides possessing free amino, imino, or hydrazino moieties were transformed into the corresponding

N-morpholylthiocarbonylsulfenyl derivs. by reaction with

N-morpholyldithiocarbamate in the presence of oxidizing agents (NaClO or iodine). These compds. showed nanomolar inhibition against three CA

(carbonic anhydrase) isoenzymes and interesting in vitro tumor

cell growth inhibitory properties against several leukemia, non-small cell lung, ovarian, melanoma, colon, CNS, renal, prostate, and breast cancer cell lines.

THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 22 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Several aromatic/heterocyclic sulfonamides possessing free amino, imino, or AB hydrazino moieties were transformed into the corresponding N-morpholylthiocarbonylsulfenyl derivs. by reaction with N-morpholyldithiocarbamate in the presence of oxidizing agents (NaClO or iodine). These compds. showed nanomolar inhibition against three CA (carbonic anhydrase) isoenzymes and interesting in vitro tumor cell growth inhibitory properties against several leukemia, non-small cell lung, ovarian, melanoma, colon, CNS, renal, prostate, and breast

cancer cell lines. morpholylthiocarbonylsulfenylaminosulfonamide inhibition carbonic ST anhydrase isoenzyme tumor cell growth ΙT Antitumor agents (N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties) IT Antitumor agents (central nervous system; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties) ΙT Nervous system Nervous system (central, neoplasm, inhibitors; Nmorpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties) IT Intestine, neoplasm Intestine, neoplasm(colon, inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties) ΙT Antitumor agents (colon; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties) TΨ Kidney, neoplasm Kidney, neoplasm Ovary, neoplasm Ovary, neoplasm (inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties) IT Antitumor agents Antitumor agents (kidney; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties) TT Antitumor agents (leukemia; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties) ΙT Antitumor agents (lung non-small-cell carcinoma; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties) ΙT Antitumor agents (mammary gland; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties) IT Antitumor agents (melanoma; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory properties) ΙT Mammary gland Mammary gland Prostate gland Prostate gland (neoplasm, inhibitors; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV and cancer growth inhibitory

properties)

```
IT
     Lung, neoplasm
     Lung, neoplasm
        (non-small-cell carcinoma, inhibitors; N-morpholylthiocarbonylsulfenyla
        mino aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase
        isoenzymes I, II and IV and cancer growth inhibitory
        properties)
ΙT
     Enzyme kinetics.
        (of inhibition; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic
        sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV
        and cancer growth inhibitory properties)
     Antitumor agents
IT
     Antitumor agents
        (ovary; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic
        sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV
        and cancer growth inhibitory properties)
ΙT
     Antitumor agents
        (prostate gland; N-morpholylthiocarbonylsulfenylamino
        aromatic/heterocyclic sulfonamide interaction with carbonic anhydrase
        isoenzymes I, II and IV and cancer growth inhibitory
        properties)
     288584-57-6
                   288584-58-7
                                 288584-59-8
IT
                                                288584-60-1
                                                              288584-61-2
     288584-62-3
                   288584-63-4
                                 288584-64-5
                                               288584-65-6
                                                              288584-66-7
                                 288584-69-0
     288584-67-8
                   288584-68-9
                                               288584-70-3
                                                              288584-71-4
     288584-72-5
                   288584-73-6
                                 288584-74-7
                                                288584-75-8
     288584-76-9
     RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or
     effector, except adverse); BSU (Biological study, unclassified); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic sulfonamide
        interaction with carbonic anhydrase isoenzymes I, II and IV and
        cancer growth inhibitory properties)
     9001-03-0, Carbonic anhydrase
ΙT
     RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
     (Biological study); PROC (Process)
        (isoenzymes; N-morpholylthiocarbonylsulfenylamino aromatic/heterocyclic
        sulfonamide interaction with carbonic anhydrase isoenzymes I, II and IV
        and cancer growth inhibitory properties)
                         121-30-2
     63-74-1
               98-18-0
                                    138-39-6
                                               547-52-4
                                                           2368-84-5
                                                                       3306-62-5
IT
     3523-95-3
                 4392-54-5
                             5250-72-6
                                         14949-00-9
                                                      16840-26-9
     35303-76-5
                  53297-68-0
                               53297-69-1
                                            60154-06-5
                                                          86029-46-1
                   216885-22-2
                                217972-52-6
     120280-13-9
     RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or
     effector, except adverse); BSU (Biological study, unclassified); THU
     (Therapeutic use); BIOL (Biological study); USES (Uses)
        (sulfonamide interaction with carbonic anhydrase isoenzymes I, II and
        IV)
     ANSWER 4 OF 4 CAPLUS COPYRIGHT 2007 ACS on STN
\Gamma8
ACCESSION NUMBER:
                         1964:457068 CAPLUS
                         61:57068
DOCUMENT NUMBER:
ORIGINAL REFERENCE NO.:
                         61:9923b-e
TITLE:
                         The anticonvulsive action of acetazolamide, its
                         derivatives, and some other sulfonamides
                         Gores, E.; Hilgetag, G.; Jung, F.
AUTHOR(S):
CORPORATE SOURCE:
                         Humboldt Univ., Berlin
                         Acta Physiologica Academiae Scientiarum Hungaricae
SOURCE:
                         (1961), 19, 95-102
                         From: CZ 1962(6), 2078.
                         CODEN: APACAB; ISSN: 0001-6756
DOCUMENT TYPE:
                         Journal
LANGUAGE:
                         German
     The following 2-acetamido- and 5-aminosulfonyl-1,3,4-thiadiazole compds.
     were tested for convulsion-preventive action against elec.,
     pentamethylenetetrazole, and strychnine convulsions: 2-acetamido-1,3,4-
```

thiadizazole, 5-[ethylaminosulfonyl]- (I); 5-(diethylaminosulfonyl)- (II);

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5-(N2-ethylureidosulfonyl)- (V); 5-(N2-butylureidosulfonyl)- (VI); and
     5-(N2-phenylureidosulfonyl)-; 5-aminosulfonyl-1,3,4-thiadiazole;
     2-amino-(VII); 2-acetamido-(VIII); 2-(p-chlorobenzenesulfonamido)- (IX);
     2-(p-carboxybenzenesulfonamido)-; 2-(p-nitrobenzenesulfonamido)-; and
     2-(2-acetamido-1,3,4-thiadiazole-5-sulfonamido)-. The following compds.
     were also investigated: 2,2'-succinyldiaminobis(1,3,4-thiadiazole-5-
     sulfonamide) (X); N,N'-hexamethylenebis[3-(2-acetamido-1,3,4-thiadiazol-5-
     ylsulfonyl)urea]; N', N'-octamethylenebis[3-(2-acetamido-1,3,4-thiadiazol-5-
     ylsulfonyl)urea]; p-acetamidobenzenesulfonamide (XI); oranil; orabet;
     Prontosil; Uliron C; Neo-Uliron; p-(p-chlorobenzenesulfonylamino)benzenesu
     lfonamide; 1,4-benzenedisulfonamide; chlorothiazide; dihydrochlorothiazide;
      and triazurol. III, V-XI, and XIII were effective against elec.
     convulsions; only II was effective against pentamethylenetetrazole
     convulsions; and I, IV, XII, and XIII were effective against strychnine
     convulsions. A parallel with the diuretic action was not established.
ΙT
     58-93-5, 2H-1,2,4-Benzothiadiazine-7-sulfonamide, 6-chloro-3,4-dihydro-,
                  58-94-6, 2H-1,2,4-Benzothiadiazine-7-sulfonamide, 6-chloro-,
     1,1-dioxide
                   64-77-7, Urea, 1-butyl-3-(p-tolylsulfonyl)-
     1,1-dioxide
                                                                  103-12-8,
     Benzenesulfonamide, p-(2,4-diaminophenyl)azo]- 121-61-9, Acetanilide,
     4'-sulfamoyl-
                    339-43-5, Urea, 1-butyl-3-sulfanilyl-
                                                              500-42-5,
     s-Triazine, 2-amino-4-(p-chloroanilino) - 547-52-4, Sulfanilanilide, 4'-sulfamoyl - 547-53-5, Sulfanilanilide, 4'-(methylsulfamoyl) -
     10518-52-2, Urea, 1-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-3-butyl-
     13463-26-8, 1,3,4-Thiadiazole-2-sulfonamide, 5-(p-
     chlorobenzenesulfonamido) - 13681-31-7, 1,3,4-Thiadiazole-2-sulfonamide,
     5-acetamido-N, N-diethyl- 14949-00-9, 1,3,4-Thiadiazole-2-sulfonamide,
     5-amino-
                16993-45-6, p-Benzenedisulfonamide
                                                      25182-53-0,
                                                     84884-65-1, Urea,
     1,3,4-Thiadiazole-2-sulfonamide, 5-acetamido
     [(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]- 84884-66-2, Urea,
     1-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-3-methyl-
                                                                  84884-70-8,
     Urea, 1-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-3-phenyl-
     89489-04-3, 1,3,4-Thiadiazole-2-sulfonamide, 5-acetamido-N-ethyl-
     90110-89-7, 1,3,4-Thiadiazole-2-sulfonamide, 5-(p-
     nitrobenzenesulfonamido) -
                                 90271-63-9, Urea, 1-[(5-acetamido-1,3,4-
     thiadiazol-2-yl)sulfonyl]-3-ethyl- 90324-21-3, Benzoic acid,
     p-[(5-sulfamoyl-1,3,4-thiadiazol-2-yl)sulfamoyl]-91114-64-6,
     N,5'-Bi[1,3,4-thiadiazole-2-sulfonamide], 5-acetamido- 91398-32-2,
     Benzenesulfonanilide, 4-chloro-4'-sulfamoyl-
                                                     92187-74-1, Succinamide,
     N, N'-bis(5-sulfamoyl-1, 3, 4-thiadiazol-2-yl)-
                                                     97790-65-3, Urea,
     1,1'-hexamethylenebis[3-[(5-acetamido-1,3,4-thiadiazol-2-yl)sulfonyl]-
     98766-55-3, Urea, 1,1'-octamethylenebis[3-{(5-acetamido-1,3,4-thiadiazol-2-
     yl)sulfonyl]-
        (as anticonvulsant)
ΙT
     26367-45-3, Alanine, 3-[p-[bis(2-chloroethyl)amino]phenyl]-N-formyl-
        (neoplasm inhibition by)
=> (positron emission tomography) or PET
(POSITRON IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).
=> s (positron emission tomography) or PET
         58520 POSITRON
         12716 POSITRONS
         60849 POSITRON
                 (POSITRON OR POSITRONS)
        506316 EMISSION
         93434 EMISSIONS
        550703 EMISSION
                 (EMISSION OR EMISSIONS)
         18466 TOMOGRAPHY
            10 TOMOGRAPHIES
```

5-(ureidosulfonyl)- (III); 5-[N2-methylureidosulfonyl)- (IV);

```
(TOMOGRAPHY OR TOMOGRAPHIES)
         23557 TOMOG
           31 TOMOGS
         23568 TOMOG
                 (TOMOG OR TOMOGS)
         29235 TOMOGRAPHY
                 (TOMOGRAPHY OR TOMOG)
         9739 POSITRON EMISSION TOMOGRAPHY
                 (POSITRON (W) EMISSION (W) TOMOGRAPHY)
         67172 PET
           967 PETS
         67621 PET
                 (PET OR PETS)
         70632 (POSITRON EMISSION TOMOGRAPHY) OR PET
L9
=> d his
     (FILE 'HOME' ENTERED AT 14:45:08 ON 01 FEB 2007)
     FILE 'REGISTRY' ENTERED AT 14:45:17 ON 01 FEB 2007
               STRUCTURE UPLOADED
L1
L2
             8 S L1
L3
           218 S L1 FULL
     FILE 'CAPLUS' ENTERED AT 14:45:53 ON 01 FEB 2007
L4
             0 S L3/DGN
L5
           199 S L3
L6
         756702 S TUMOR? OR NEOPLAS? OR CANCER?
L7
            26 S L6 AND L5
\Gamma8
             4 S L7 NOT PY>2002
L9
         70632 S (POSITRON EMISSION TOMOGRAPHY) OR PET
=> s 19 (L) 16
        3607 L9 (L) L6
=> s 110 not py>2002
       4853307 PY>2002
         2179 L10 NOT PY>2002
L11
=> d ibib abs kwic
L11 ANSWER 1 OF 2179 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:990937 CAPLUS
DOCUMENT NUMBER:
                        145:484479
TITLE:
                        Protein and cDNA sequences of a 24.09-kilodalton human
                        proteasome subunit HC5 sequence homolog and their
                        therapeutic uses
INVENTOR(S):
                        Mao, Yumin; Xie, Yi
                        Shanghai Biowindow Gene Development, Inc., Peop. Rep.
PATENT ASSIGNEE(S):
                        China
                        Faming Zhuanli Shenqing Gongkai Shuomingshu, 31pp.
SOURCE:
                        CODEN: CNXXEV
DOCUMENT TYPE:
                        Patent
LANGUAGE:
                        Chinese
FAMILY ACC. NUM. COUNT:
                        1
PATENT INFORMATION:
                                          APPLICATION NO.
                        KIND
                               DATE
     PATENT NO.
                                          · ------
                                                                  _____
     _____
                        ____
                               _____
     CN 1345865
                               20020424 CN 2000-125585
                                                                  20000929
                                           CN 2000-125585
                                                                  20000929
PRIORITY APPLN. INFO.:
     The invention provides the protein and cDNA sequences of a novel
     24.09-kilodalton human protein, designated as "proteasome subunit HC5
```

24.09", which has sequence homol. with known proteasome subunit HC5. The

18471 TOMOGRAPHY

invention relates to expression of proteasome subunit HC5 sequence homolog in E. coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention also relates to preparation of antibody against proteasome subunit HC5 sequence homolog. The invention further relates to the uses of the proteasome subunit HC5 sequence homolog in treatment of proteasome subunit HC5-related diseases (such as tumor, diabetes mellitus, menstrual disorder, peptic ulcer, arrhythmia, anemia, and epilepsy). AΒ The invention provides the protein and cDNA sequences of a novel 24.09-kilodalton human protein, designated as "proteasome subunit HC5 24.09", which has sequence homol. with known proteasome subunit HC5. invention relates to expression of proteasome subunit HC5 sequence homolog in E. coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention also relates to preparation of antibody against proteasome subunit HC5 sequence homolog. The invention further relates to the uses of the proteasome subunit HC5 sequence homolog in treatment of proteasome subunit HC5-related diseases (such as tumor, diabetes mellitus, menstrual disorder, peptic ulcer, arrhythmia, anemia, and epilepsy).

```
=> s (positron emission tomography)
         58520 POSITRON
         12716 POSITRONS.
         60849 POSITRON
                 (POSITRON OR POSITRONS)
        506316 EMISSION
         93434 EMISSIONS
        550703 EMISSION
                 (EMISSION OR EMISSIONS)
         18466 TOMOGRAPHY
            10 TOMOGRAPHIES
         18471 TOMOGRAPHY
                 (TOMOGRAPHY OR TOMOGRAPHIES)
         23557 TOMOG
            31 TOMOGS
         23568 TOMOG
                 (TOMOG OR TOMOGS)
         29235 TOMOGRAPHY
                 (TOMOGRAPHY OR TOMOG)
L12
          9739 (POSITRON EMISSION TOMOGRAPHY)
                 (POSITRON (W) EMISSION (W) TOMOGRAPHY)
=> s 112 (L) 16
          1718 L12 (L) L6
L13
=> d ibib kwic
L13 ANSWER 1 OF 1718 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER:
                         2007:101979 CAPLUS
                         In vivo biodistribution and highly efficient tumour
TITLE:
                         targeting of carbon nanotubes in mice
AUTHOR(S):
                         Liu, Zhuang; Cai, Weibo; He, Lina; Nakayama, Nozomi;
                         Chen, Kai; Sun, Xiaoming; Chen, Xiaoyuan; Dai, Hongjie
CORPORATE SOURCE:
                         Department of Chemistry, Stanford University,
                         Stanford, CA, 94305, USA
SOURCE:
                         Nature Nanotechnology (2007), 2(1), 47-52
                         CODEN: NNAABX; ISSN: 1748-3387
PUBLISHER:
                         Nature Publishing Group
DOCUMENT TYPE:
                         Journal
                         English
LANGUAGE:
     Single-walled carbon nanotubes (SWNTs) exhibit unique size, shape and
     phys. properties that make them promising candidates for biol.
     applications. Here, we investigate the biodistribution of radio-labeled
     SWNTs in mice by in vivo positron emission
     tomog. (PET), ex vivo biodistribution and Raman spectroscopy. It
     is found that SWNTs that are functionalized with phospholipids bearing
```

polyethylene-qlycol (PEG) are surprisingly stable in vivo. PEG chain length on the biodistribution and circulation of the SWNTs is studied. Effectively PEGylated SWNTs exhibit relatively long blood circulation times and low uptake by the reticuloendothelial system (RES). Efficient targeting of integrin pos. tumor in mice is achieved with SWNTs coated with PEG chains linked to an arginine-glycine-aspartic acid (RGD) peptide. A high tumor accumulation is attributed to the multivalent effect of the SWNTs. The Raman signatures of SWNTs are used to directly probe the presence of nanotubes in mice tissues and confirm the radio-label-based results.

=> s brain and 113 538747 BRAIN 25015 BRAINS 541541 BRAIN (BRAIN OR BRAINS)

L14 297 BRAIN AND L13

=> s carbonic

L15

44315 CARBONIC 1 CARBONICS 44316 CARBONIC

(CARBONIC OR CARBONICS)

=> s 115 and 114

0 L15 AND L14

=> s 114 not py>2003 3800069 PY>2003

213 L14 NOT PY>2003 L17

=> s 114 not py>2002 4853307 PY>2002

L18193 L14 NOT PY>2002

=> d ibib abs kwic

L18 ANSWER 1 OF 193 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:7237 CAPLUS

DOCUMENT NUMBER: 141:319962

TITLE: Preparation 18F-choline analogue and its

biodistribution in annuals

Tang, Ganghua; Tang, Xiaolan; Wang, Mingfang; Zhang, AUTHOR(S):

Lan; Li, Zhi; Luo, Lei; Huang, Zuhan .

CORPORATE SOURCE: Nanfang PET Center, Nanfang Hospital, First Military

Medical University, Guangzhou, 510515, Peop. Rep.

China

SOURCE: Zhonghua Heyixue Zazhi (2002), 22(3), 172-174

CODEN: CITCDE; ISSN: 0253-9780

PUBLISHER: Jiangsusheng Yuanzi Yixue Yanjiuso

DOCUMENT TYPE: Journal LANGUAGE: Chinese

A 18F labeled choline analog, 2-18F- fluoroethyl-dimethyl 2-oxyethyl-ammonium (FECH), a tumor imaging agent, was developed. FEC was prepared via two steps displacement reaction of 18F-fluoride with 1,2-bis(tosyloxy)ethane to give the intermediate, 1-18F-fluoro-2-(tosyloxy) ethane, which was then coupled with dimethylethanolamine to prepare FECH. Radiochem. purity and biodistributions in normal mice and nude mice bearing cancer cell were determined FECH was synthesized in about 25% radiochem. yield with decay-correction and more than 99% radiochem. purity with a total radiosynthesis time of 80 min. Biodistributions of FECH in normal mice and nude mice were as follows: rapid blood clearance; high uptake in the liver, kidney, bladder and pancreas; low uptake in the brain, myocardium, stomach, intestine and bone; high in tumors in

blood, brain, heart, stomach, and muscle. A simple and practical synthesis protocol for FECH is achieved. Biodistribution of FECH in mice is very similar to that of 11C choline reported in literatures, FECH is promising to be an agent in diagnosis of tumors with PET imaging.

A 18F labeled choline analog, 2-18F- fluoroethyl-dimethyl AB 2-oxyethyl-ammonium (FECH), a tumor imaging agent, was developed. was prepared via two steps displacement reaction of 18F-fluoride with 1,2-bis(tosyloxy)ethane to give the intermediate, 1-18F-fluoro-2-(tosyloxy) ethane, which was then coupled with dimethylethanolamine to prepare FECH. Radiochem. purity and biodistributions in normal mice and nude mice bearing cancer cell were determined FECH was synthesized in about 25% radiochem. yield with decay-correction and more than 99% radiochem. purity with a total radiosynthesis time of 80 min. Biodistributions of FECH in normal mice and nude mice were as follows: rapid blood clearance; high uptake in the liver, kidney, bladder and pancreas; low uptake in the brain, myocardium, stomach, intestine and bone; high in tumors in blood, brain, heart, stomach, and muscle. A simple and practical synthesis protocol for FECH is achieved. Biodistribution of FECH in mice is very similar to that of 11C choline reported in literatures, FECH is promising to be an agent in diagnosis of tumors with PET imaging.

IT Imaging agents

Positron-emission tomography (preparation of 18F-choline analog as tumor imaging agents and its biodistribution in animals and)

=> dhis

DHIS IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system. For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> d his

(FILE 'HOME' ENTERED AT 14:45:08 ON 01 FEB 2007)

FILE 'REGISTRY' ENTERED AT 14:45:17 ON 01 FEB 2007

L1STRUCTURE UPLOADED L2 8 S L1 L3 218 S L1 FULL FILE 'CAPLUS' ENTERED AT 14:45:53 ON 01 FEB 2007 L40 S L3/DGN L5199 S L3 L6 756702 S TUMOR? OR NEOPLAS? OR CANCER? L7 26 S L6 AND L5 L8 4 S L7 NOT PY>2002 L9 70632 S (POSITRON EMISSION TOMOGRAPHY) OR PET 3607 S L9 (L) L6 L10 L11 2179 S L10 NOT PY>2002 L12 9739 S (POSITRON EMISSION TOMOGRAPHY) 1718 S L12 (L) L6 L13 L14 297 S BRAIN AND L13 44316 S CARBONIC L15 L16 0 S L15 AND L14 L17 213 S L14 NOT PY>2003 193 S L14 NOT PY>2002

=> s 15 and 112

L19 3 L5 AND L12

=> d ibib 1-3

L19 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

2006:1354320 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

146:100561

TITLE:

Preparation of arenesulfonamide fluorescent dye conjugates having carbonic anhydrase inhibiting activity and their use as therapeutic and diagnostic

agents

INVENTOR(S):

Supuran, Claudiu; Scozzafava, Andrea

PATENT ASSIGNEE(S):

SOURCE:

Italy

PCT Int. Appl., 46pp. CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

FAMILY ACC. NUM. COUNT:

English 2

PATENT INFORMATION:

APPLICATION NO. PATENT NO. KIND DATE DATE ---------_____ -----______ 20061228 WO 2006-IB51976 WO 2006137009 Α2 20060620 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM 20061228 WO 2006137092 WO 2005-IT366 A1 20050623 AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

L19 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER:

PRIORITY APPLN. INFO.:

2006:1354145 CAPLUS

DOCUMENT NUMBER:

146:100560

TITLE:

Preparation of fluorescent sulfonamide derivatives having carbonic anhydrase inhibiting activity and their use as cancer therapeutic and diagnostic agents

WO 2005-IT366

A 20050623

INVENTOR(S):

Supuran, Claudiu T.; Scozzafava, Andrea

PATENT ASSIGNEE(S):

Italy

SOURCE:

PCT Int. Appl., 43pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. KIND DATE DATE APPLICATION NO. 20061228 WO 2005-IT366 A1 WO 2006137092 20050623 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

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PRIORITY APPLN. INFO.:
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REFERENCE COUNT:
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L19 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2007 ACS on STN
                          1998:687761 CAPLUS
ACCESSION NUMBER:
DOCUMENT NUMBER:
                          130:52370
                          Carbonic anhydrase inhibitors - Part 29: interaction
TITLE:
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                          derivatives
                          Supuran, Claudiu T.; Ilies, Marc A.; Scozzafava,
AUTHOR(S):
                          Andrea
                          Universita degli Studi, Dipartimento di Chimica, ·
CORPORATE SOURCE:
                          Laboratorio di Chimica Inorganica e Bioinorganica,
                          Florence, 50121, Italy
                          European Journal of Medicinal Chemistry (1998), 33(9),
SOURCE:
                          739-751
                          CODEN: EJMCA5; ISSN: 0223-5234
                          Editions Scientifiques et Medicales Elsevier
PUBLISHER:
                          Journal
DOCUMENT TYPE:
                          English
LANGUAGE:
                                 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS
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FULL ESTIMATED COST
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 NEWS 1
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 NEWS
       2
 NEWS
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 NEWS
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 NEWS
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 NEWS 9
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 NEWS 10
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 NEWS 11
          DEC 14
                  WPIDS/WPINDEX/WPIX manual codes updated
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DEC 14 GBFULL and FRFULL enhanced with IPC 8 features and

NEWS 12

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NEWS	13	DEC 18	CA/CAplus pre-1967 chemical substance index entries enhanced
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NEWS	14	DEC 18	CA/CAplus patent kind codes updated
NEWS	15	DEC 18	MARPAT to CA/CAplus accession number crossover limit increased
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NEWS	16	DEC 18	MEDLINE updated in preparation for 2007 reload
NEWS	17	DEC 27	CA/CAplus enhanced with more pre-1907 records
NEWS	18	JAN 08	CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS	19	JAN 16	CA/CAplus Company Name Thesaurus enhanced and reloaded
NEWS	20	JAN 16	IPC version 2007.01 thesaurus available on STN
NEWS	21	JAN 16	WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS	22	JAN 22	CA/CAplus updated with revised CAS roles
NEWS	23	JAN 22	CA/CAplus enhanced with patent applications from India
NEWS	24	JAN 29	PHAR reloaded with new search and display fields
NEWS	25	JAN 29	CAS Registry Number crossover limit increased to 300,000 in
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NEWS EXPRESS NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8
NEWS X25	X.25 communication option no longer available

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